



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/521,302      | 12/28/2004  | Frederic Pasquier    | PF030100            | 1438             |

24498 7590 06/17/2010  
Robert D. Shedd, Patent Operations  
THOMSON Licensing LLC  
P.O. Box 5312  
Princeton, NJ 08543-5312

|          |
|----------|
| EXAMINER |
|----------|

BEHARRY, NOEL R

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2446

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

06/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/521,302 | <b>Applicant(s)</b><br>PASQUIER ET AL. |  |
|                              | <b>Examiner</b><br>NOEL BEHARRY      | <b>Art Unit</b><br>2446                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 23-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/19/2010</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This communication is in response to applicant's response filed under 37 C.F.R. §1.111 in response to a non-final office action. Claims 23, 34, 37, and 47-52 have been amended. Claims 23-52 are subject to examination.

2. Acknowledgment is made to applicant's amendment to claims 23, 34, 37, 47-49, and 50-52 to obviate previous 35 U.S.C. 101 Rejections to these claims. Previously raised 35 U.S.C. 101 Rejections to claims 23, 34, 37, 47-49, and 50-52 are hereby withdrawn.

### ***Response to Arguments***

3. Applicant's arguments filed 03/19/2010 have been fully considered but they are not persuasive for the following reasons:

4. **Applicant's Argument:**

Applicant argues in substance that "Unlike the claimed arrangement, Hoffberg provides an enhanced interface for facilitating human input of a desired control sequence in a programmable device (e.g. a VCR) by employing specialized visual feedback (See Abstract). Hoffberg is fundamentally different from the claimed arrangement which makes it possible to initiate actions from a received audio-visual stream that is completely unintrusive with regard to broadcasters and operators of

Art Unit: 2446

services while permitting simple and reliable implementation (Application, page 6, Lines 18-25)."

5. **Examiner's Response:**

The examiner respectfully disagrees. Applicant continually argue that the cited references fails to teach the invention as outlined in the specification but the examiner submits that "It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices/nc.*, 7 USPQ2d 1064." The examiner has taken the broadest reasonable interpretation and applied it to the claims. The claims merely mentions "audiovisual programme" but it is not limited in the claims as to what this entails. The applicant points to the specification to teach what the audiovisual programme is but this is not in the claims and is therefore not limited to that interpretation. An audiovisual programme could include a videotext signal. Applicant argues that "the identifier codes described in Hoffberg are transmitted as a label, are associated with a transmission and are merely matched to user input to cause a transmission to be recorded. However, these identifier codes are not included within a particular audiovisual programme as in the present claimed arrangement." The examiner submits that Hoffberg teaches that "each separate program has a unique identifier code, transmitted at the beginning of the program" (Col 21, Lines 56-57) thereby teaching the limitation. Applicant further argues that "Hoffberg monitors a television channel for a unique identifier code from non-audio and non-video digital data that is added to the television channel. This is fundamentally different from

Art Unit: 2446

the claimed arrangement which recognizes portions of the audiovisual programme without any additional data being changed and/or inserted into the audiovisual programme to provide a synchronization signal." The examiner contends that this is not in the claims. The claims merely claim that there are synchronization signals (which are not defined in the claims) in the audiovisual programme (which is not defined in the claims) and that it is recorded in a storage space. Nothing is mentioned about not changing or inserting data into the audiovisual programme and therefore the claims remain broad open to interpretation. Again with regards to the argument that the specification provides examples of the extracted portions include, these limitations are not in the claims and it is the claims which are anticipated or unpatentable.

Applicant further argues that Hoffberg does not teach "instructions for extracting said extracted portion from at least one stream of an audiovisual programme previously received by the stream reception module." The examiner respectfully disagrees.

Hoffberg teaches in Col 45, Lines 12-36 that pattern recognition is used from previously streamed content and is stored in order to make a decision to recognize future portions of content to extract, for example commercials.

6. **Applicant's Argument:**

Applicant argues in substance that Hoffberg "fails to provide any enabling disclosure of "preparing recognition elements making it possible to obtain at least one extracting portion of the content of said audiovisual programme" as recited in claim 34."

7. **Examiner's Response:**

The examiner respectfully disagrees. Please note that the limitation "preparing" is an extremely broad term. Things are be prepared in many different ways. In this case, Hoffberg prepares the codes by assigning a code to each separate program. It can be further prepared by transmitting the codes at the beginning of the program. Further, the claims recite "making it possible to obtain **at least one** extracted portion of content" therefore the at least one extracted portion can include the entire portion. Applicant further argues that Hoffberg fails to teach "a transmission module for transmitting said recognition elements independently of transmissions of said audiovisual programme" but the examiner respectfully disagrees. The claim merely mentions transmitting independently, but independently in what way. Hoffberg teaches that the code is transmitted at the beginning of the program, so that can be considered independently from transmitting at the exact same time while still being included in the audiovisual programme. Further, Hoffberg teaches a separate channel can be used to transmit the characterization data (Col 22, Lines 50-62).

8. **Applicant's Argument:**

Applicant argues in substance that "Solvason (with Hoffberg) fails to teach or suggest "a reception module and a recording module, for receiving and recording in a storage space, recognition elements making it possible to obtain at least one extracted portion of the content of said audiovisual programme" as recited in claim 23. Solvason (with Hoffberg) also fails to teach or suggest "a detection module for detecting said

Art Unit: 2446

synchronization signals in said audiovisual programme received, by means of said recognition elements stored in said storage space, by recognition in the content of said audiovisual programme received, of said extracted portion" and "a transmission module for transmitting action instructions in case of detection of said synchronization signals in said audiovisual programme, said instructions being designed so as to trigger at least one action" as recited in claim 23."

9. **Examiner's Response:**

The examiner respectfully disagrees. The mere fact that the prior art does not use the same words as claimed by applicant does not mean the prior art does not teach. Accordingly it should be noted that applicant claims are broad and merely claims detecting at least two portions of content. "At least two portions of content" can be any parts of the content because "portions" is a significantly broad term. Hoffberg teaches in Col 44, Lines 5-67 that portions of content can be extracted and used to perform a decision as to what action to perform next based on the extracted portion of the content. Col 45, Lines 12-29 teaches this by the ability to edit commercials out of a broadcast. Hoffberg further teaches that the content is filtered to extract the content into a number of features including sound, movement, objects correlated sound and object, background, etc. These features are then passed to a transform engine to match the extracted features with the standard form of the templates in the template database (Col 44, Lines 37-51). Hoffberg fails to explicitly teach including Boolean operators to match the extracted features but Solvason teaches that it is known in the art to use Boolean

Art Unit: 2446

operators to define multiple actions and therefore is obvious to combine these references in order to define multiple recognition elements for the same element with different actions having different criteria.

10. Regarding all other arguments presented by applicant, the arguments are substantially the same as those which have already been addressed above and in the interest of brevity; the examiner directs the applicant to those responses above.

11. **Examiner's Note:**

The examiner advises applicant to amend the claims to further define an audiovisual programme, synchronization signals and the extracted portions in order to overcome the cited prior art. The claims are currently broad and it is advised to include further details on the detection of the synchronization signals.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. **Claims 23-29 and 31-52** are rejected under 35 U.S.C. 102(b) as being anticipated by **Hoffberg** et al. (**Hoffberg** hereafter) (US 5,920,477) (Applicant's IDS dated 12/28/2004).



**Regarding claims 23, 39, 42, 45, 47 and 50, Hoffberg teaches,**

recognition unit comprising a processor for executing instructions for recognizing synchronization signals in at least one audiovisual programme received, said audiovisual programme comprising an audiovisual content intended to be transmitted to users and control information, said recognition unit comprising: **(the system of Video Program System Signal Transmitters, in which the VCR is programmed by entering a code for the Video Program System signal, which is emitted by television stations in West Germany. Each separate program has a unique identifier code, transmitted at the beginning of the program, so that a user need only enter the code for the program, and the VCR will monitor the channel for the code transmission, and begin recording when the code is received, Col 21, Lines 52-60 & Col 44, Lines 37 – Col 45, Lines 59)**

a reception module and a recording module for recording in a storage space (VCR, Col 21, Lines 53-60), recognition elements making it possible to obtain at least one extracted portion of the content of said audiovisual programme, **(unique identifier code, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

a reception module for receiving via a broadcasting network, at least one transmitted stream carrying said audiovisual programme, **(video signal reception device 2501; tuner 2502; Fig. 25 & Col 68, Lines 41-Col 69, Lines 14 & Col 44, Lines 37 – Col 45, Lines 59)**

Art Unit: 2446

a detection module for detecting said synchronization signals in said audiovisual programme received, by means of said recognition elements stored in said storage space, by recognition in the content of said audiovisual programme received, of said extracted portion, **(unique identifier code, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)** and

a transmission module for transmitting action instructions in case of detection of said synchronization signals in said audiovisual programme, said instructions being designed to trigger at least one action, **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

wherein the module for receiving the recognition elements is designed to receive among said recognition elements, instructions for extracting said extracted portion from at least one stream of an audiovisual programme previously received by the stream reception module, said portion being extracted from said audiovisual programme previously received, and in that said recording module is designed to directly extract said portion of said stream according to said extraction instructions and to record said portion in the storage space. **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

**Regarding claim 24, Hoffberg teaches,**

wherein the module for receiving the recognition elements is designed to receive a triggering message and in that the recording module is designed to extract and record upon receipt of said triggering message, said portion of said previously received stream.  
**(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60)**

**Regarding claim 25, Hoffberg** teaches,

wherein the module for receiving the recognition elements is also designed to receive among said recognition elements, at least one identifier of said extracted portion, and in that said detection module is capable of retrieving from the storage space said previously recorded extracted portion associated with said identifier, so as to recognize in the content of said audiovisual program received said extracted portion.  
**(assigning identifiers to corresponding ones of the mapped ranges, each of the identifiers specifying for the corresponding mapped range a procedure and a address of the corresponding subset of the stored image data, Col 28, Lines 37-41)**

**Regarding claim 26, Hoffberg** teaches,

wherein the module for receiving the recognition elements is also designed to receive directly the said extracted portion among the said recognition elements and the recording module is designed to record the said extracted portion in the storage space.

Art Unit: 2446

**(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60)**

**Regarding claim 27, Hoffberg teaches,**

wherein the recognition unit also comprises a timeout module before dispatch of said action instructions by the transmission module. **(may incorporate a delay, Col 45, Lines 12-26)**

**Regarding claim 28, Hoffberg teaches,**

wherein the modules for receiving and for recording recognition elements and the module for transmitting action instructions are designed to respectively receive, record and transmit identifiers relating to the said actions to be triggered. **(Col 21, Lines 53-60)**

**Regarding claim 29, Hoffberg teaches,**

wherein each of said portions of content consists of at least one of the following portions: a picture, a piece of a picture, a sound and any combination of at least two of said portions. **(video program system signal, Col 21, Lines 53-60)**

**Regarding claim 31, Hoffberg teaches,**

wherein said recognition elements include at least one time information item, said detection module being designed to detect said portions of content in conjunction with said time information item and the transmission module being designed to transmit said

Art Unit: 2446

action instructions in case of such detection. **(the user would be prompted to explicitly choose the program sequence by day, time, channel, and duration, Col 67, Lines 61-66)**

**Regarding claim 32, Hoffberg teaches,**

wherein said time information item comprises at least one information item chosen from among a date of detection and a detection time slot. **(the user would be prompted to explicitly choose the program sequence by day, time, channel, and duration, Col 67, Lines 61-66)**

**Regarding claim 33, Hoffberg teaches,**

wherein said recognition elements include at least one channel reference, said detection module being designed to detect said portions of content in conjunction with said channel reference and the transmission module being designed to transmit said action instructions in case of such detection. **(the user would be prompted to explicitly choose the program sequence by day, time, channel, and duration, Col 67, Lines 61-66)**

**Regarding claims 34, 38, 41, 44, 48 and 51, Hoffberg teaches,**

specification unit comprising a processor for executing instructions for specifying synchronization signals associated with at least one audiovisual programme, said audiovisual programme comprising an audiovisual content intended to be transmitted to

Art Unit: 2446

users and control information, and said synchronization signals being intended to be detected in at least one stream carrying said audiovisual programme transmitted via a broadcasting network and to thus trigger at least one action, **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

wherein said specification unit comprises:

a preparation module for preparing recognition elements making it possible to obtain at least one extracted portion of the content of said audiovisual programme, **(receives identifying data from at least one of said input device and the data input, Col 25, Lines 62 - Col 26, Lines 2 & Col 44, Lines 37 – Col 45, Lines 59)** and

a transmission module for transmitting said recognition elements independently of transmissions of said audiovisual programme, to at least one recognition unit intended to detect said synchronization signals in said transmitted stream carrying said audiovisual programme, by recognizing said extracted portion in the content of said audiovisual programme, **(the user need only enter the code for the program, and the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)** and

wherein the preparation and transmission modules of said unit are designed respectively to prepare and transmit extraction instructions, in at least one stream of an audiovisual programme previously received by the recognition unit via the broadcasting network, for extracting said portion of content, said portion being extracted from said

Art Unit: 2446

audiovisual programme previously received. **(the user need only enter the code for the program, and the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

**Regarding claim 35, Hoffberg** teaches,

wherein the preparation and transmission modules of said unit are designed respectively to prepare and transmit identifiers relating to said actions to be triggered in the case of detection of said synchronization signals. **(the user need only enter the code for the program, and the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & assigning identifiers to corresponding ones of the mapped ranges, each of the identifiers specifying for the corresponding mapped range a procedure and a address of the corresponding subset of the stored image data, Col 28, Lines 37-41)**

**Regarding claim 36, Hoffberg** teaches,

wherein said action identifiers relate to at least one of the following actions: transmission of an interactive service, triggering of an interactive service, triggering of an update of an interactive service, triggering of a recording of said audiovisual programme and connection to a website. **(the VCR will monitor the channel for the**

Art Unit: 2446

**code transmission and begin recording when the code is received, Col 21, Lines 53-60)**

**Regarding claims 37, 40, 43, 46, 49 and 52, Hoffberg teaches,**

synchronization system including a processor for executing instructions comprising:

a specification unit for specifying synchronization signals associated with at least one audiovisual programme, said audiovisual programme comprising an audiovisual content intended to be transmitted to users and control information, **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

a recognition unit for recognizing said synchronization signals in at least one stream carrying said audiovisual programme transmitted via a broadcasting network, by recognizing at least one extracted portion of the content of said audiovisual programme, in the audiovisual programme received, **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)** and

an activation unit designed to trigger at least one action in the case of detection of said synchronization signals by the recognition unit, **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**



wherein the specification unit is designed to prepare and transmit to the recognition unit recognition elements making it possible to obtain said extracted portion and comprising instructions for extracting said portion of the content from at least one stream of an audiovisual programme previously received by the recognition unit via the broadcasting network, said portion being extracted from said audiovisual programme previously received, and in that the recognition unit is designed to directly extract said portion of said stream according to said extraction instructions and to record said portion. **(the user need only enter the code for the program, and the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hoffberg** in view of **Solvason** (WO 02/21840 A2) (Applicant's IDS dated 12/28/2004).

**Regarding claim 30, Hoffberg** teaches,

said detection module being designed to detect at least two of said portions of content **(Col 44, Lines 5-36)** and the transmission module being designed to transmit

Art Unit: 2446

said action instructions in case of such detection **(the VCR will monitor the channel for the code transmission and begin recording when the code is received, Col 21, Lines 53-60 & Col 44, Lines 37 – Col 45, Lines 59)**

**Hoffberg** fails to explicitly teach,

wherein said recognition elements include at least one Boolean operator.

However, **Solvason** teaches,

wherein said recognition elements include at least one Boolean operator. **(Page 10, Lines 22-Page 11, Lines 8)**

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Hoffberg** to include the above recited limitations as taught by **Solvason** in order to define multiple recognition elements for the same element with different actions having different criteria **(Page 11, Lines 2-4)**.

### ***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2446

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOEL BEHARRY whose telephone number is (571)270-5630. The examiner can normally be reached on M-TH 10-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446